

is a processing for judging whether or not packet data disappears from the transmission buffer 11a. The step U3 is a processing for judging whether or not the presently used code number m is larger than 0 in view of the fact that use data channels are decreased every time transmission is stopped. That is, this step is provided because if the presently used code number m is 0, there is no data channel in which transmission is to be stopped. The step U8 is a processing for stopping the transmission relating to the m -th data channel DCH $_m$. A different point in the step U9 is that in the case where transmission relating to one data channel DCH is stopped, the presently used code number m is decremented by one. The step U10 is a processing for judging whether or not the presently used code number m is larger than 0, which is provided because of the same reason as the step U3.

Embodiment 9

Fig. 18 is a conceptual view for explaining a transmission stop control processing according to embodiment 9 of the present invention.

In the embodiments 6 to 8, the transmission stop control processing is executed in response to the timing when the packet data disappears in the transmission buffer 11a. In this case, the transmission through all data channels DCH assigned to one call continues until the packet data disappears in the

transmission buffer 11a, and then, the transmission is stopped at different timings. On the other hand, in this embodiment 9, in the state where the packet data is still stored in the transmission buffer 11a, the transmission through the data channels DCH is stopped at different timings.

More specifically, this transmission stop control processing is performed by the control portion 12. On the basis of the in-buffer data amount Dbuf, the control portion 12 determines a channel in which transmission is to be stopped. More specifically, the control portion 12 determines the transmission stop channel on the basis of a comparison result between the in-buffer data amount Dbuf and the code m transmission stop threshold value Sth-m, and the code m transmission stop time Tstp-m. The code m transmission stop threshold value Sth-m and the code m transmission stop time Tstp-m are set to values suitable for a transmission environment similarly to the code (m+1) transmission start threshold value Tth-(m+1) and the code (m+1) transmission start time Tstr-(m+1).

More specifically, the control portion 12 monitors the in-buffer data amount Dbuf at all times. As a result of this monitoring, the transmission relating to the fourth data channel DCH4 is stopped in response to the timing when the in-buffer data amount Dbuf has been not larger than a code 4 transmission stop threshold value Sth-4 throughout a code 4

transmission stop time Tstp-4.

Besides, the control portion 12 stops the transmission relating to the third data channel DCH3 in response to the timing when the in-buffer data amount Dbuf has been not larger than a code 3 transmission stop threshold value Sth-3 smaller than the code 4 transmission stop threshold value Sth-4 throughout a code 3 transmission stop time Tstp-3. Further, the control portion 12 stops the transmission relating to the second data channel DCH2 in response to the timing when the in-buffer data amount Dbuf has been not larger than a code 2 transmission stop threshold value Sth-2 smaller than the code 3 transmission stop threshold value Sth-3 throughout a code 2 transmission stop time Tstp-2. Furthermore, the control portion 12 stops the transmission relating to the first data channel DCH1 in response to the timing when the in-buffer data amount Dbuf has been 0 throughout a code 1 transmission stop time Tstp-1.

Like this, the transmission stop timing is determined on the basis of the in-buffer data amount Dbuf. Accordingly, a delay width from a transmission stop of another data channel DCH becomes relatively random. More specifically, as shown in Fig. 19, a delay width between the fourth data channel DCH4 and the third data channel DCH3 is two frames, a delay width between the third data channel DCH3 and the second data channel DCH2 is one frame, and a delay width between the second data